

Also, in claim 1, element iii, the element “a fixed seat and foot operated outrigger on which said oar articulates” is recited. Neither the duPont ‘250 nor the ‘719 patent discloses a “fixed seat and foot operated outrigger on which said oar articulates” in which the outriggers move in the opposite direction as the feet *ergo*, even assuming, *arguendo*, that it would have been obvious to combine the two references, which is not admitted, all of the elements of the claimed invention are not recited. When one or more of the elements of the claimed invention are not recited in the prior art references in at least one of the references cited in a 35 U.S.C. §103 rejection, the rejection is not valid, for at the very least, all the references must disclose *all* the elements. As stated in MPEP 706.02(j) “[T]he prior art reference (or references when combined) must teach or suggest all the claim limitations.”

The claim also mentions “a means to manually fix said oars in the vertical position for maneuver strokes.” A maneuver stroke is a turning stroke or a reverse stroke (rowing backwards). First, the term implies auto-feathering and the “means to manually fix said oars in the vertical position” is a mechanism to turn off the auto-feathering. It is a turnoff mechanism of sorts, which is nonsensical without auto-feathering. Second, the “means to manually fix said oars in the vertical position for maneuver strokes” is a dogging mechanism, which is not disclosed in either the duPont ‘250 or ‘719 patent.

It should be noted that according to MPEP 2146, “known disadvantages in old devices which would naturally discourage search for new inventions may be taken into account in determining obviousness.” Because the duPont ‘719 patent is unable to feather and thus skim the surface for stability, pontoons have had to be added to the boat to keep it upright. This extremely awkward and clumsy arrangement would deter someone from combining with other patents to make the disclosed invention. It would be slow, too massive for convenient transport. The pontoons also slide back and forth in the water in the ‘719 patent as the outriggers are driven by the feet, causing unnecessary turbulence and drag. Also, this imposes an awkward motion wherein the spatial relationship of the pontoons with the hull is not constant but is constantly in flux, with the pontoons traveling forward and back from stern to bow. A person of ordinary skill in the art would not, knowing the deficiencies of the ‘719 patent (which is stern facing), seek to improve on it so to create a bow-facing rowboat.

As stated MPEP 706.02, there must be *a reasonable expectation of success* when combining the references to defeat an application under 35 USC §103. The ‘250 discloses yet another system without *any* means for feathering, let alone auto-feathering. There is no reasonable expectation of success in making a forward (bow) facing rowboat that is not unduly wide (and therefore slow) without feathering. In order to return to a power stroke in the ‘250 patent you must take the hydrofoils completely out of the water without skimming which causes an unstable condition for a fast hull, just as was the case in the ‘719 patent.

Apart from the missing elements of the claim, combining the ‘719 patent with the ‘250 patent, given the unstable designs, would not produce the reasonable expectation of success needed to establish a *prima facie* case of obviousness. MPEP 706.02(j).